

ABSTRACT OF THE INVENTION

Nitric oxide synthase and nitric-oxide-related bioactivity are shown to be necessary and sufficient for activation of an oocyte during the process of fertilization. Methods are provided for the modulation of oocyte activation through modulation of nitric oxide levels. Oocyte activation is enhanced by the addition of nitric oxide synthase, nitric oxide synthase activators, nitric oxide donors, or other compounds that increase the nitric oxide levels of the oocyte during fertilization. The administration of NOS inhibitors is used to block oocyte activation, where contraception is desired.

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